

## **REMARKS**

Receipt of the Office Action mailed May 12, 2009 is acknowledged. With this amendment and the accompanying Request for Continued Examination, claims 1-3, 6-19 and 21-24 are pending.

### **Amendments**

Claims 1 and 15 have been amended. Support for these amendments may be found in original claims 4-5, 20, in the specification at paragraph [0019], and in FIG. 1. Claim 2 has been amended to use more conventional U.S. claim language. Claims 5 and 6 have been amended to change their dependency from claim 4 to claim 1. Claim 21 has been amended to correct a typographical error. Claims 4, 5 and 20 have been cancelled without prejudice or disclaimer. No new claims are added.

No new matter has been added, and entry of the amendments is respectfully requested.

### **Prior Art Rejections**

Claims 1, 4, 8-13, 15-19 and 21-24 have been rejected under 35 U.S.C. 102(b) as allegedly anticipated by Ewart et al., U.S. Patent No. 5,922,537 ("Ewart"). Claims 2 and 3 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Ewart. Claim 14 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Ewart in view of Pankratz, U.S. Patent No. 4,810,639 ("Pankratz"). Applicants request withdrawal of these rejections in view of the foregoing amendments and the following remarks.

The Examiner has asserted that Ewart anticipates claims 1, 4, 8-13, 15-19 and 21-24 because, in part, Ewart states that "elimination of the outer dielectric layer may increase

sensitivity” (col. 15, lines 12-13), suggesting that the analyte may come in contact with the surface of the ferroelectric layer. Claims 1 and 15 (the independent claims) have now been amended to recite that the transducer and the sample are disposed between first and second electrodes, and that the first electrode is in contact with the transducer, while the second electrode is in contact with the sample. Nothing in Ewart teaches or suggests a system as described in amended claims 1 and 15 in which a first electrode is in contact with transducer only while a second electrode is in contact with the sample only. Ewart’s Figure 8, as acknowledged by the Examiner, shows a system in which both electrodes are in contact with the transducer. As such, claims 1 and 15 – and the claims which depend from them – cannot be anticipated by Ewart, necessitating withdrawal of the anticipation rejections.

With respect to the obviousness rejections, Ewart teaches that its device works on the principle that when a sample containing analytes is introduced to the test surface of the device, the analytes starts to compete with analyte entities that are attached to the test surface for recognition molecule sites of reporter or phage particles (see, col. 17, lines 7- 17, and Fig. 8 of the drawings). After the competition, detection of the analytes is observed by a change in capacitance when the analytes are removed from the test surface together with the reporter particles to which the analytes are attached.

On the other hand, the presently claimed method is very different from anything which can be carried out using Ewart’s device. (See, p. 4, lines 16-17; p. 5, lines 32 - p. 6 line 2; and page 6, lines 30-33 of the present application.) In particular, the amount of analytes in a sample is not detected by removing them from the test surface as taught by Ewart, but instead the analytes are either attached directly to or captured by probe molecules on the test surface that would result in the change in capacitance necessary for their detection to be made. Nothing in

Ewart suggests modifying its structure so that it could function in this way.

Moreover, all of the embodiments of Ewart's device, in order to function as biosensors, require the use of the reporter particles. By contrast, as indicated in the abovementioned portions of the specification, the presently claimed method can detect analytes without the use of reporter particles.

In summary, nothing in Ewart, either alone or in combination with the secondary references, teaches or suggests modifying its device so that it can carry out the presently claimed method. Accordingly, the rejections under § 103(a) should also be withdrawn.

The Examiner has also rejected claims 1, 4-7 and 20 are rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Stasiak et al., U.S. Patent No. 7,163,659 ("Stasiak") in view of Alexander, U.S. Patent No. 4,514,441 ("Alexander") in light of Ewart. Applicants traverse. First, as noted above, Ewart does not teach or suggest the presently claimed invention. Second, neither Stasiak nor Alexander teach the functionality of the sensor as defined by the claims. Accordingly, a person of ordinary skill in the art would have had no reason to combine their teachings with those of Ewart. Third, Stasiak, like Ewart does not teach or suggest a a system as described in amended claims 1 and 15 in which a first electrode is in contact with transducer only while a second electrode is in contact with the sample only. Accordingly, this rejection should also be reconsidered and withdrawn.

**Conclusion**

In view of the foregoing amendments and remarks, applicants submit that the claims are now in condition for allowance, and earnestly solicit prompt notice to that effect. Should any questions arise, the Examiner is invited to call the undersigned representative so that this case may receive an early Notice of Allowance.

Favorable consideration and allowance are earnestly solicited.

Respectfully submitted,

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